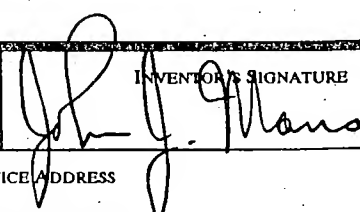
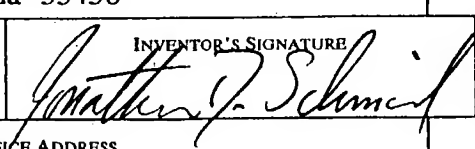
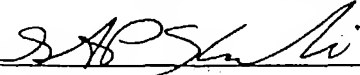



<b>COMBINED DECLARATION AND POWER OF ATTORNEY IN ORIGINAL APPLICATION</b>		<b>ATTORNEY DOCKET No.: F-7995</b>
<p>I declare: that my residence and citizenship are as stated below next to my name; that I believe I am the original, first, and sole inventor (if only I am named below) or joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought in the specification attached hereto entitled:</p> <p style="text-align: center;"><b>METHOD OF DESIGNING A MULTI-STAGE COMPRESSOR ROTOR</b></p> <p>that I have reviewed and understand the contents of the above-identified specification, including the claims; that I acknowledge the duty to disclose the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56; that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.</p> <p>I appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:</p> <p>JOHN SWIATOCHA (Registration No. 27,955)  CHARLES E. SOHL (Registration No. 27,051)  RONALD G. CUMMINGS (Registration No. 28,405)  STEPHEN A. SCHNEEBERGER (Registration No. 25,434)</p> <p>Direct All Correspondence to:</p> <p>STEPHEN A. SCHNEEBERGER                      Telephone: (860) 565-5106  Pratt &amp; Whitney                                      Fax: (860) 565-9276  Patent Department - MS 132-13  400 Main Street  East Hartford, CT 06108</p>		
FULL NAME OF SOLE OR FIRST INVENTOR	INVENTOR'S SIGNATURE	DATE
John J. Marra		16 Dec 99
RESIDENCE AND POST OFFICE ADDRESS		CITIZENSHIP
18270 River Oaks Drive, Jupiter, Florida 33458		U.S.A.
FULL NAME OF SECOND JOINT INVENTOR (IF ANY)	INVENTOR'S SIGNATURE	DATE
Jonathan D. Schmid		17 DEC 99
RESIDENCE AND POST OFFICE ADDRESS		CITIZENSHIP
7011 Edgemere Terrace, Palm Beach Gardens, Florida 33410-2183		U.S.A.

FULL NAME OF THIRD JOINT INVENTOR (IF ANY) Steven P. Kuzmeski	INVENTOR'S SIGNATURE 	DATE 12/14/99
RESIDENCE AND POST OFFICE ADDRESS 134 Croft Drive, Manchester, Connecticut 06040-1622		CITIZENSHIP U.S.A.
FULL NAME OF FOURTH JOINT INVENTOR (IF ANY) David A. Borzillo	INVENTOR'S SIGNATURE 	DATE 12/19/99
RESIDENCE AND POST OFFICE ADDRESS 6342 Foster Street, Jupiter, Florida 33458		CITIZENSHIP U.S.A.

s\dss\sas\Declaration\F-7995

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICERECORDATION FORM COVER SHEET  
PATENTS ONLY

To The Honorable Commissioner of Patents &amp; Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of Conveying party(ies):

John J. Marra  
18270 River Oaks Drive  
Jupiter, Florida 33458  
U.S.A.

Assignment Execution Date: 16 December 1999

Additional name(s) of conveying party(ies) attached? ☒ Yes

## 3. Nature of conveyance:

- ☒ Assignment ☐ Security  
☐ Agreement ☐ Merger  
☐ Change of Name ☐ Other

## 2. Name and address of receiving party(ies):

UNITED TECHNOLOGIES CORPORATION  
Hartford, Connecticut 06101

A Corporation of Delaware

Additional name(s) & address(es) attached? ☒ NO

## 4. Application number(s) or patent number(s): Attorney Docket Number: F-7995

This document is being filed together with a new application, the execution date of the application is  
December 16, 1999; December 17, 1999, December 14, 1999; December 17, 1999, respectively.

Patent Application Title: "Method of Designing a Multi-Stage Compressor Rotor"

Additional number attached? ☒ NO5. Name and address of party to whom  
correspondence concerning document should be  
mailed:

Name: Stephen A. Schneeberger  
Address: Pratt & Whitney  
Patent Department - MS 132-13  
400 Main Street  
East Hartford, CT 06108

6. Total Number of applications and patents  
involved: 1

7. Total fee (37 C.F.R. § 3.41)  
\$40.00

Enclosed: NO

Authorized to be charged to deposit account:  
YES

8. Deposit Account Number 21-0270,  
Order No.: F-7995

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached  
copy is a true copy of the original document.

STEPHEN A. SCHNEEBERGER  
NAME OF PERSON SIGNING

Stephen A. Schneeberger Dec 21, 1999  
SIGNATURE DATE

**U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE**

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

**1. Name of Conveying party(ies) continued:**

**Jonathan D. Schmid  
7011 Edgemere Terrace  
Palm Beach Gardens, Florida 33410-2183  
U.S.A.**

**Assignment Execution Date: 17 December 1999**

**Steven P. Kuzmeski  
134 Croft Drive  
Manchester, Connecticut 06040-1622  
U.S.A.**

**Assignment Execution Date: 14 December 1999**

**David A. Borzillo  
6342 Foster Street  
Jupiter, Florida 33458  
U.S.A.**

**Assignment Execution Date: 14 December 1999**

# ASSIGNMENT

WHEREAS, We, John J. Marra of Jupiter, Florida; Jonathan D. Schmid of Palm Beach Gardens, Florida; Steven P. Kuzmeski of Manchester, Connecticut; and David A. Borzillo of Jupiter, Florida, have invented certain improvements in "Method of Designing a Multi-Stage Compressor Rotor" identified as Attorney Docket No. F-7995, and described in a patent application executed by the undersigned on the date(s) set after the signature(s) hereto, being owner(s) of all right, title and interest in and to said application and in and to any invention described therein, free from all prior assignments, agreements, licenses, mortgages, or other encumbrances whatsoever, and having full right to convey the entire interest both legal and equitable herein assigned; and

WHEREAS, UNITED TECHNOLOGIES CORPORATION, of Hartford, Connecticut, a corporation of the State of Delaware (assignee) is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged by the undersigned, the undersigned does (do) hereby sell, assign, transfer and set over unto said assignee, its successors and assigns, the entire right, title and interest in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications under the provisions of the International Convention; also the entire right, title and interest in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize(s) and request(s) the issuing authority to issue any and all patents on said application or applications to said assignee or its successors and assigns.

The undersigned further agree(s), without any further payment or compensation by said assignee or its successors and assigns, to communicate to said assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said assignee, its successors or assigns and nominees to obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

IN TESTIMONY WHEREOF, the undersigned has(have) hereunto set his(their) hand(s) and seal(s) on the date after his(their) signature(s).

(L.S.) John J. Marra  
JOHN J. MARRA

16 December, 1999

(L.S.) Jonathan D. Schmid  
JONATHAN D. SCHMID

17 DECEMBER, 1999

(L.S.) Steven P. Kuzmeski  
STEVEN P. KUZMESKI

December 14, 1999

(L.S.) David A. Borzillo  
DAVID A. BORZILLO

December 17, 1999

State of Florida )  
County of Palm Beach ) ss: Jupiter

On this 16th day of December, 1999 before me personally appeared JOHN J. MARRA to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542560 EXPIRES  
June 19, 2000  
BONDED THRU TROY FAIR INSURANCE, INC.

Richard W. White  
Notary Public

~~Commissioner of the Superior Court~~ Vol 2-3

My Commission Expires: June 19, 2000

SEAL

State of Florida )  
County of Palm Beach ) ss: Palm Beach Gardens

On this 17th day of December, 1999 before me personally appeared JONATHAN D. SCHMID to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542550 EXPIRES  
June 19, 2000  
BONDED THRU TROY FAH INSURANCE, INC.

Richard W. Whiting  
Notary Public

~~Commissioner of the Superior Court~~

My Commission Expires: \_\_\_\_\_

SEAL

State of Connecticut, ss: EAST Hartford  
County of Hartford

On this 14<sup>th</sup> day of December, 1999 before me personally appeared STEVEN P. KUZMESKI to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.

Barlene S. Sutton  
Notary Public

~~Commissioner of the Superior Court~~

My Commission Expires: May 31, 2002

SEAL

State of Florida )

County of Palm Beach ) ss: Palm Beach Gardens

On this 17th day of December, 1999 before me personally appeared DAVID A. BORZILLO to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542550 EXPIRES  
June 19, 2000  
BONDED THRU TROY FARM INSURANCE, INC.

Richard W. Whiting  
Notary Public

~~Commissioner of the Superior Court~~

SEAL

My Commission Expires: June 19, 2000

01-18-2000

RE



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101245697

To The Honorable Commissioner of Patents &amp; Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of Conveying party(ies):

John J. Marra  
18270 River Oaks Drive  
Jupiter, Florida 33458  
U.S.A.

Assignment Execution Date: 16 December 1999

Additional name(s) of conveying party(ies) attached? ☒ Yes

## 3. Nature of conveyance:

- ☒ Assignment ☐ Security  
☐ Agreement ☐ Merger  
☐ Change of Name ☐ Other

## 2. Name and address of receiving party(ies):

UNITED TECHNOLOGIES CORPORATION  
Hartford, Connecticut 06101

A Corporation of Delaware

JC503 U.S. PTO

09/469147



12/21/99

Additional name(s) & address(es) attached? ☐ NO

## 4. Application number(s) or patent number(s): Attorney Docket Number: F-7995

This document is being filed together with a new application, the execution date of the application is  
December 16, 1999; December 17, 1999, December 14, 1999; December 17, 1999; respectively.

Patent Application Title: "Method of Designing a Multi-Stage Compressor Rotor"

09/469147

Additional number attached? ☐ NO

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Stephen A. Schneeberger  
Address: Pratt & Whitney  
Patent Department - MS 132-13  
400 Main Street  
East Hartford, CT 06108

6. Total Number of applications and patents involved: 1

7. Total fee (37 C.F.R. § 3.41)  
\$40.00

Enclosed: NO

Authorized to be charged to deposit account:  
YES

8. Deposit Account Number 21-0270,  
Order No.: F-7995

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

STEPHEN A. SCHNEEBERGER  
NAME OF PERSON SIGNING

SIGNATURE

DATE

09/469147

12/18/2000

40.00 CH

FC:501

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

RECORDATION FORM COVER SHEET  
PATENTS ONLY

1. Name of Conveying party(ies) continued:

Jonathan D. Schuid  
7011 Edgemere Terrace  
Palm Beach Gardens, Florida 33410-2133  
U.S.A.

Assignment Execution Date: 17 December 1999

Steven P. Kuzneski  
134 Croft Drive  
Manchester, Connecticut 06040-1622  
U.S.A.

Assignment Execution Date: 14 December 1999

David A. Borzillo  
6342 Foster Street  
Jupiter, Florida 33458  
U.S.A.

Assignment Execution Date: 14 December 1999

## ASSIGNMENT

WHEREAS, We, John J. Marra of Jupiter, Florida; Jonathan D. Schmid of Palm Beach Gardens, Florida; Steven P. Kuzmeski of Manchester, Connecticut; and David A. Borzillo of Jupiter, Florida, have invented certain improvements in "Method of Designing a Multi-Stage Compressor Rotor" identified as Attorney Docket No. F-7995, and described in a patent application executed by the undersigned on the date(s) set after the signature(s) hereto, being owner(s) of all right, title and interest in and to said application and in and to any invention described therein, free from all prior assignments, agreements, licenses, mortgages, or other encumbrances whatsoever, and having full right to convey the entire interest both legal and equitable herein assigned; and

WHEREAS, UNITED TECHNOLOGIES CORPORATION, of Hartford, Connecticut, a corporation of the State of Delaware (assignee) is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged by the undersigned, the undersigned does (do) hereby sell, assign, transfer and set over unto said assignee, its successors and assigns, the entire right, title and interest in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications under the provisions of the International Convention; also the entire right, title and interest in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize(s) and request(s) the issuing authority to issue any and all patents on said application or applications to said assignee or its successors and assigns.

The undersigned further agree(s), without any further payment or compensation by said assignee or its successors and assigns, to communicate to said assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said assignee, its successors or assigns and nominees to obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

IN TESTIMONY WHEREOF, the undersigned has(have) hereunto set his(their) hand(s) and seal(s) on the date after his(their) signature(s).

(L.S.) John J. Marra  
JOHN J. MARRA

16 December, 1999

(L.S.) Jonathan D. Schmid  
JONATHAN D. SCHMID

17 DECEMBER, 1999

(L.S.) Steven P. Kuzmeski  
STEVEN P. KUZMESKI

December 14, 1999

(L.S.) David A. Borzillo  
DAVID A. BORZILLO

December 17, 1999

State of Florida )

ss: Jupiter

County of Palm Beach )

On this 16th day of December, 1999 before me personally appeared JOHN J. MARRA to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542550 EXPIRES  
June 19, 2000  
BONDED THRU TROY FAIN INSURANCE, INC.

Richard W. Whiting  
Notary Public

~~Commissioner of the Superior Court~~ Notary

My Commission Expires: June 19, 2000

SEAL

State of Florida )

ss: Palm Beach Gardens

County of Palm Beach )

On this 17th day of December, 1999 before me personally appeared JONATHAN D. SCHMID to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542550 EXPIRES  
June 19, 2000  
BONDED THRU TROY FAIN INSURANCE, INC.

Richard W. Whiting  
Notary Public

~~Commissioner of the Superior Court~~

My Commission Expires: \_\_\_\_\_

SEAL

State of Connecticut )

ss: East Hartford

County of Hartford )

On this 14th day of December, 1999 before me personally appeared STEVEN P. KUZMESKI to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.

Darlene S. Sutton  
Notary Public

~~Commissioner of the Superior Court~~

My Commission Expires: May 31, 2002

SEAL

State of Florida )  
County of Palm Beach ) ss: Palm Beach Gardens

On this 17th day of Feb December, 1999 before me personally appeared DAVID A. BORZILLO to me personally known, and known to me to be the person(s) who signed the foregoing assignment, and acknowledged the signing of same as his(their) free act and deed.



Richard W. Whiting  
MY COMMISSION # CC542550 EXPIRES  
June 19, 2000  
BONDED THRU TROY FAIR INSURANCE, INC.

Richard W. Whiting  
Notary Public

~~Commissioner of the Superior Court~~

SEAL

My Commission Expires: June 19, 2000